### (19) World Intellectual Property Organization International Bureau





## (43) International Publication Date 15 May 2003 (15.05.2003)

### **PCT**

# (10) International Publication Number WO 03/040808 A3

(51) International Patent Classification<sup>7</sup>: G02C 3/00, F21L 15/14

(21) International Application Number: PCT/US02/35665

(22) International Filing Date:

7 November 2002 (07.11.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/006,919 10/145,595 7 November 2001 (07.11.2001) US 14 May 2002 (14.05.2002) US

(71) Applicant and

(72) Inventor: WATERS, Michael [US/US]; 372 Bateman Circle North, Barrington Hills, IL 60010 (US).

(74) Agents: SAMPLES, Kenneth, H. et al.; Fitch, Even, Tabin & Flannery, Suite 1600, 120 South LaSalle Street, Chicago, IL 60603 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

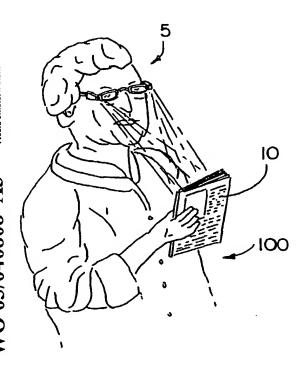
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 21 August 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: LIGHTED READING GLASSES



(57) Abstract: Lighted reading glasses (5) are provided to enable clear reading of normal sized text to occur when the reading material (10) is held at usual distances from the reader in poorly lit locations. The lighted glasses have high intensity lights, such as in the form of LEDs (108) that generate narrow light beams cones and which are oriented in light modules to inwardly cant the light beam cones to meet and overlap so high brightness light is generated in a conical overlap area of light which is maximized in size in the range of normal reading distances. In another form, a clip-on light apparatus is provided that includes a spacer frame having opposite end portions each mounting lights, preferably constructed as described above. In one form, retainers at the end portions are adapted to releasably engage outer sides of the eyeglass lenses. The frame preferably incorporates a draw spring assembly to allow adjustments for different size glasses. In another form, the light spacing is fixed and a clipping mechanism is provided for clipping to the eyeglasses in the area generally between the eyeglasses lenses.